

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-33. (Canceled)

34. (Currently Amended) A method of delivering energy to ablate tissue, comprising the steps of:

providing a device having an ablating element;

positioning the device at an epicardial tissue site, the tissue site having an epicardial near surface and an endocardial far surface;

heating or cooling the tissue site with a first, non-ablating quantity of energy delivered over a first period of time;

measuring a temperature change at the tissue site over a the first period of time;

analyzing the temperature change over the first period of time to determine a temperature response of tissue at the tissue site;

characterizing the tissue based on the temperature response of the tissue, temperature responses of other known tissue types and the input of at least one variable from a list of variables consisting of presence of fat, amount of fat, flow rate of blood, tissue thickness and temperature of blood;

determining an ablation time interval and a desired temperature to be delivered by the ablating element based on the tissue characterization; and

activating the ablating element after the determining step is completed; and

ablating the tissue with a second quantity of energy delivered over a second period of time as directed by the determining step.

35. (Currently Amended) The method of claim 34, wherein:

the analyzing and ablating steps are controlled by a control system; and

the ablating step being is carried out by maintaining the epicardial near surface temperature at a temperature of 0-80°C during the ablating step.

36. (Currently Amended) The method of claim 34, wherein:

the providing step is carried out with the device having an ablating element; and
the method also includes including the step of changing the temperature of the tissue with the ablating element; and

the ablating step is carried out with the ablating element.

37. (Canceled)

38. (Original) The method of claim 34, wherein:

the ablating step is carried out using the results of the measuring step to approximate when the far surface achieves a target temperature.

39. (Canceled)

40. (Original) The method of claim 34, wherein:

the ablating step is carried out with a plurality of ablating elements, wherein no more than 50% of the ablating elements are activated at one time.

41. (Original) The method of claim 34, wherein:

the providing step is carried out with the device having a plurality of suction wells, at least one of the ablating elements being positioned in each of the suction wells.

Claims 42-73 (Canceled)

74. (Currently Amended) A method of delivering energy to ablate tissue, comprising the steps of:

providing a device having an ablating element;

positioning the device at an epicardial tissue site, the tissue site having an epicardial near surface and an endocardial far surface;

applying a first, non-ablating quantity of energy to the tissue site;
measuring a temperature change at the tissue site over a first period of time;
analyzing the temperature change to determine a tissue characterization;
activating the ablating element after the determining step is completed;
~~subsequent to the tissue characterization, ablating the tissue using the ablating element with a second quantity of energy based on the tissue characterization;~~
ablating tissue at the tissue site with a second quantity of energy over a second period of time; and

the ablating step being carried out with input from at least one variable from a list of variables consisting of presence of fat, amount of fat, flow rate of blood, tissue thickness and temperature of blood.

75. (Currently Amended) The method of claim 74, wherein:

the analyzing and ablating steps are controlled by a control system; and
the ablating step is being carried out by maintaining the epicardial near surface temperature at a temperature of 0-80°C during the ablating step.

76. (Currently Amended) The method of claim 74, wherein:

the method further comprises comprising the step of changing the temperature of the tissue with the ablating element.

77. (Previously Presented) The method of claim 74, wherein:

the ablating step is carried out using the results of the measuring step to approximate when the far surface achieves a target temperature.

78. (Previously Presented) The method of claim 74, wherein:

the ablating step is carried out with a plurality of ablating elements, wherein no more than 50% of the ablating elements are activated at one time.

79. (Previously Presented) The method of claim 74, wherein:

the providing step is carried out with the device having a plurality of suction wells, at least one of the ablating elements being positioned in each of the suction wells.

80. (New) The method of claim 34, wherein,
the first, non-ablating quantity of energy is cooling energy.

81. (New) The method of claim 74, wherein,
the first, non-ablating quantity of energy is cooling energy.